

CLAIMS

What is claimed is:

1. A method of subpixel rendering input image data onto a display panel, said panel substantially comprising a repeating grouping of a plurality of primary colored subpixels, wherein said input image data has a different number of subpixel data sets for each image frame than said display panel, the steps of said method comprising:

subpixel rendering input image data that is input at a first clock rate;

outputting subpixel rendered data to said display panel at a second clock rate wherein dummy data is inserted into the output data.

2. The method of Claim 1 wherein said subpixel repeating group further comprises at least one column in which more than one color primary comprises said column.

3. The method of Claim 1 wherein said first clock rate and said second clock rate are the same.

4. The method of Claim 1 wherein said first clock rate and said second clock rate are different.

5. The method of Claim 1 wherein said input image data comprises more subpixel data sets for each image frame than said number of subpixel data set for each image frame for rendering on said display panel.

6. The method of Claim 1 wherein said method further comprises the step of outputting a signal indicating valid output data to the display controller.

7. A method of subpixel rendering input image data onto a display panel, said panel substantially comprising a repeating grouping of a plurality of primary colored subpixels, wherein said input image data has a different number of subpixel data sets for each image frame than said display panel, the steps of said method comprising:

subpixel rendering input image data that is input at a first clock rate;

outputting subpixel rendered data to said display panel at a second clock rate wherein the output image data is buffered.

8. The method of Claim 7 wherein said subpixel repeating group further comprises at least one column in which more than one color primary comprises said column.

9. The method of Claim 6 wherein said output image data sent to the display controller does not comprise dummy image data.

10. The method of Claim 6 wherein said first clock rate and said second clock rate are the same.

11. The method of Claim 6 wherein said first clock rate and said second clock rate are different.

12. A method of subpixel rendering input image data onto a display panel, said panel substantially comprising a repeating grouping of a plurality of primary colored subpixels, wherein said input image data has a different number of subpixel data sets for each image frame than said display panel, the steps of said method comprising:

subpixel rendering input image data that is input asynchronously;

outputting subpixel rendered data to said display panel in a format that at a second clock rate wherein dummy data is inserted into the output data.

13. The method of Claim 12 wherein said subpixel repeating group further comprises at least one column in which more than one color primary comprises said column.

14. A system for rendering input image data in a first colored subpixel data format onto a display panel in a second colored subpixel data format, said system comprising:

a input means for accepting input image data in said first colored subpixel data format;

a subpixel rendering engine for remapping the input image data into said second colored subpixel data format;

a channel formatter for effectively ordering the second colored subpixel data format; and

a means for outputting the data formatted by said channel formatter to said display.

15. The system of Claim 14 wherein said system further comprises a gamut mapping system for remapping the image data in a first colored subpixel data format into said second colored subpixel data format wherein said first colored subpixel data comprises data in a first set of primary colors and said second colored subpixel data format comprises data in a second set of primary colors.

16. The system of Claim 14 wherein the channel formatter formats said output data according to the number of channels available to the display controllers.

17. The system of Claim 16 wherein the channel formatter adds dummy image data to the valid output data set.